Continuing Authority Program Formulation Issues in Ecosystem Restoration

Economic & Environmental Conference
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13 –15 April 2004

ECOSYTEM RESTORATION

- What is ecosystem restoration – "…attempt to accomplish a return of natural areas or ecosystems to a close approximation of their conditions prior to disturbance or to less degraded, more natural conditions." (EP 1165-2-502)

- Objectives:
  - Maintain the independence of science from pressures, i.e. political, policy, etc.
  - Incorporate legitimacy & quality of the best available science into restoration features & actions
  - Strive for "TRUE" ecosystem restoration & management
    - Restore the ecosystem process
    - Restore specific elements of the ecosystem

FORMULATION ISSUES

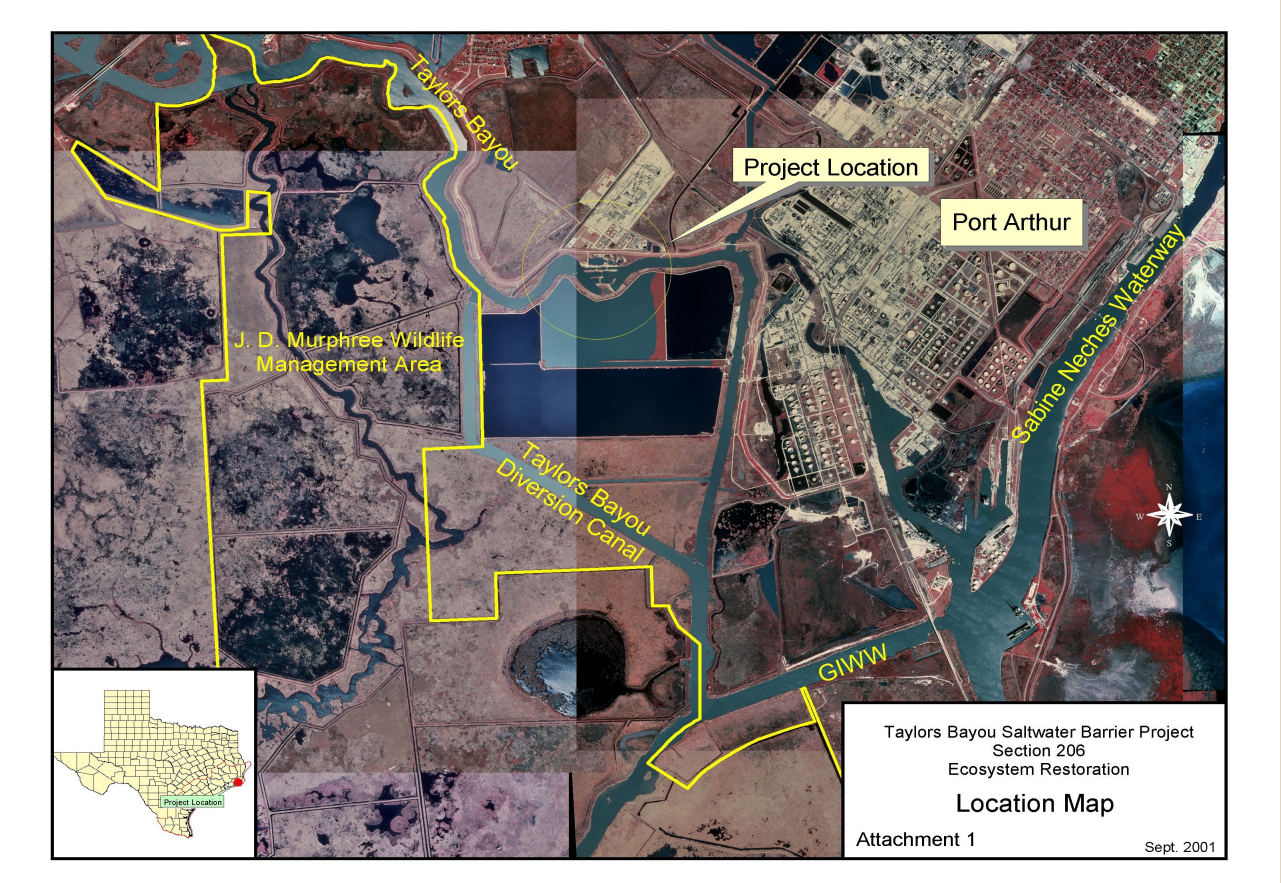
- Selecting the appropriate authority
- Existing Conditions not adequately described
- Future Without Project discussion often omitted
- Evaluation of Alternatives
  - Scope
  - Level of Detail
  - Sponsor’s Plan
  - Ecosystem Evaluation
  - Sustainability
  - Real Estate
  - Environmental Assessment
  - Value Engineering

FORMULATION ISSUE – SELECTING CORRECT AUTHORITY

- Section 206 or Section 1135
- Restoration on Other Federal Agencies' Lands
- Restoration of Man-Made Wetlands
- Pollution Abatement
- Degradation Caused by Nature

FORMULATION ISSUE – SELECTING CORRECT AUTHORITY

Cause of degradation = saltwater



Section 206 or 1135?

FORMULATION ISSUE – SELECTING CORRECT AUTHORITY

Restoration on other Federal Agencies Lands

Bureau of Reclamation Dam

FORMULATION ISSUE – SELECTING CORRECT AUTHORITY

Restoration of Man-Made Wetlands
Section 206

Wetland cells were created from material dredged from a public water supply lake.

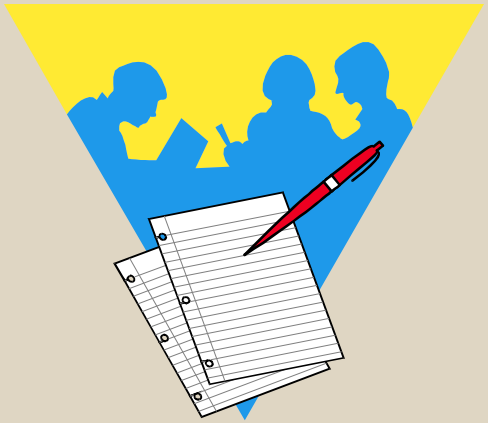
FORMULATION ISSUE – SELECTING CORRECT AUTHORITY

Wetland for Treatment of Acid Mine Drainage

Pollution Abatement????

FORMULATION ISSUE – SELECTING CORRECT AUTHORITY

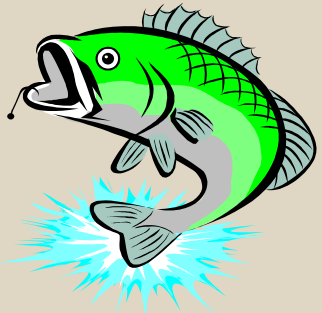
- **MAKE A DETERMINATION EARLY !!!!**
- **Make the determination prior to funding the PRP**
  - **How – Eligibility Determination Letter Report**
    - Project Name
    - Location
    - Problems & Opportunities
    - Possible Alternatives
    - Sponsor & Sponsor's View
    - Estimated Total Study Cost
    - Funds needed in FY



- **During review of PRP**

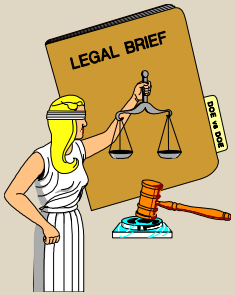
FORMULATION ISSUE – EXISTING CONDITIONS

- **Description of existing habitat not clearly present in terms of :**
  - **Significance**
    - **Endangered, critical, or threatened species**
  - **Degraded or destroyed ecosystem habitat**



FORMULATION ISSUE – FUTURE WITHOUT PROJECT

- **What actions and activities will occur even if the proposed project is not built are often omitted, such as:**



  - **Court orders requiring mitigation in the study area**
  - **Legal rulings that may impact project formulation**
  - **Other studies in the vicinity – Specifically *authorized studies* that could include the same study area as CAP study (**ER 100 Appendix F para F-6c**)**
  - ***Projects* specifically authorized for construction in the study area** (ER 100 Appendix F para F-6f(1))

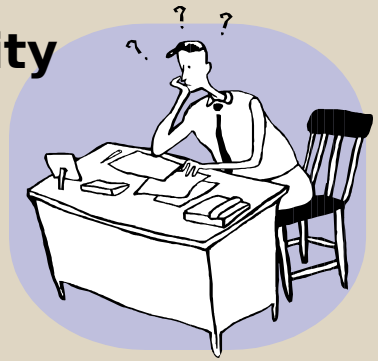
FORMULATION ISSUE
–
PROJECT SCOPE

Limits of study area boundaries

- **Project Scope should be the “PROJECT FOOTPRINT”**
  - **Area on which the restoration features are located**
  - **Benefits can be accrued from the entire area**

FORMULATION ISSUE – LEVEL OF DETAIL

- **WHAT IS REQUIRED?**
  - **Same procedures developed for specifically authorized studies & projects**
  - **Level of detail reflect scope & complexity**
- **WHAT MUST BE INCLUDED?**
  - **Planning & Design Analysis**
    - **Min. # Alternatives**
    - **In Progress Review – resolve issues**
  - **Feasibility**
    - **Formulation Checkpoint Meeting**
- **SHOULDN'T FORMULATE THE SPONSOR'S PLAN/DESIGN**
- **SCALES OF THE SAME PLAN ARE NOT DIFFERENT ALTERNATIVES**



FORMULATION ISSUE – ECOSYSTEM EVALUATION

- Which metric to use?
- HEP not appropriate for coastal marsh
- Biomass not the same in different regions
- Cost effective and incremental analysis
- Professional judgment should be sufficient????
- Urban vs. non-urban restoration – how to compare?

FORMULATION ISSUE – ECOSYSTEM EVALUATION

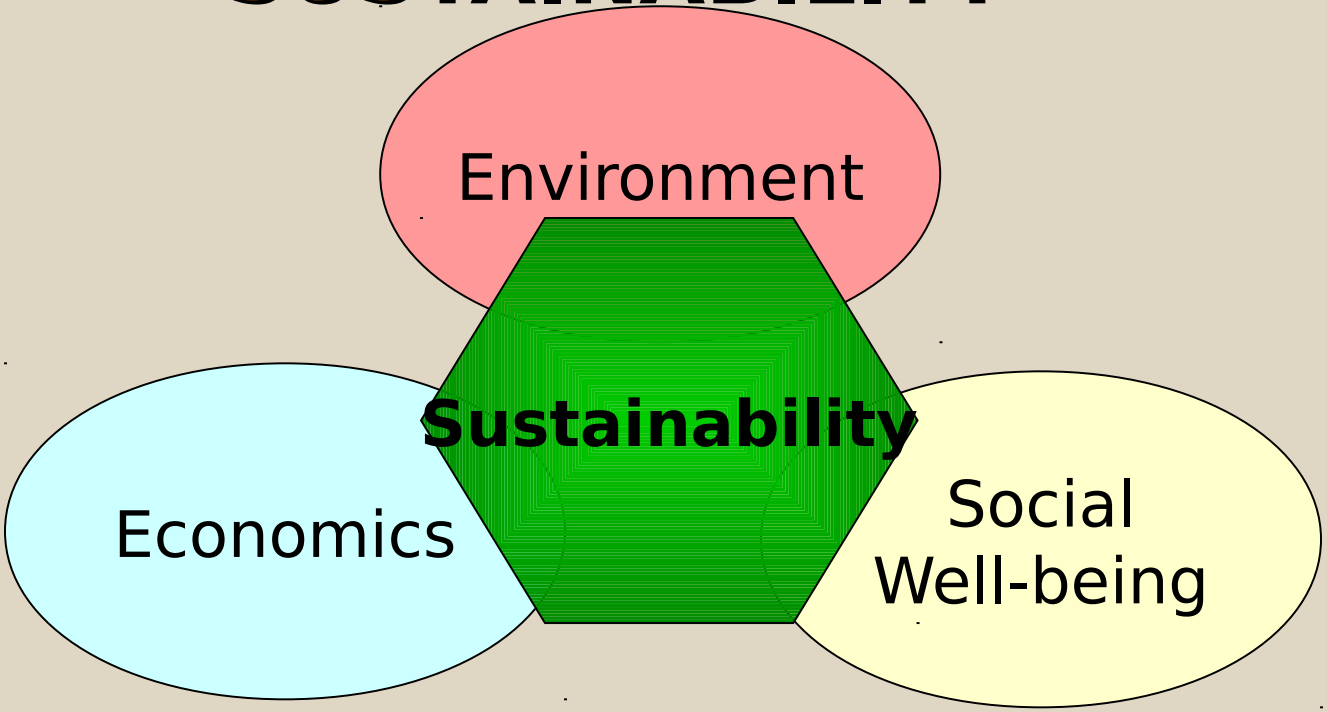
Criteria for Evaluation of Alternatives/Methods

- **Acceptable**
- **Consistent**
- **Documentable**
- **Explainable, technically based**
- **Objective, not subjective**
- **Output = Effort/Input**
- **Predictive**
- **Quantifiable**

Common Approaches

- **Acres**: Acre = Acre; it's simple, especially for PDAs
- **Habitat Units**: HU=HU; known process, but can be manipulated
- **Other Methods**: Must meet criteria above

FORMULATION ISSUE – SUSTAINABILITY



Sustainability: "A synergistic process whereby ***environmental*** and ***economic*** and ***quality of life*** considerations are effectively balanced in project ***planning, design, construction, operation*** and ***maintenance*** in meeting the needs of the present without compromising the quality of life for future generations."

Lt. Gen. Robert B. Flowers
Commander and Chief of Engineers

FORMULATION ISSUE – SUSTAINABILITY

- What is “environmental sustainability”?
  - Partially or fully reestablish/restore the ecosystem functions in self-regulating system
- Methodology Used to Achieve Restoration Outcome
  - Restore ecosystem to be self sustaining
  - Should not require continuous support to maintain restored functions
- Human Impacts – Restoration in Urban Areas
  - Can restored habitat survive in urban setting, i,.e. traffic, runoff of chemicals used on lawns, etc.

FORMULATION ISSUE – REAL ESTATE

- **Navigational Servitude**
  - **Determine in PRP**
  - **Real Estate makes determination**
- **Value of LER Exceed Sponsor's cost sharing Requirement**
  - **Not given high budgetary priority (ER 100 Appendix F para F-19b(5))**
  - **Language proposed in 2004 WDRA to waiver LER reimbursement to sponsors when value exceeds cost sharing requirement**

FORMULATION ISSUE – ENVIRONMENTAL ASSESSMENT

Should the Environmental Assessment evaluate the cumulative impacts of all projects in the the vicinity proposed project?

(If cumulative impacts require mitigation, should this be a CAP?)

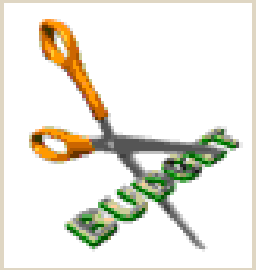
FORMULATION ISSUE – VALUE ENGINEERING

Is Value Engineering required for CAP project?

- **Yes! OMB requires VE studies on all Corps construction projects over $2M**
  - **SWD Policy is to subtract the value of real estate from total project cost**
- **Is the VE study prepared in feasibility or P&S?**
  - **No later than 35% completion of design; should be considered earlier**
  - **SWD policy is to prepare VE in fi ase of P&S**

LOOKING TO THE FUTURE

- **Policy Changes**
  - **Feasibility Cost Sharing Agreements for Sections 206 & 1135**
  - **Wavier reimbursements of LERRDS when value exceeds cost sharing requirement**



- **Budget Constraints**
  - **Ranking of studies & projects**
  - **Performance Criteria**

DID I CONFUSE YOU OR PUT YOU TO SLEEP?

QUESTIONS?